

CLAIMS

1. A method of operating a mobile wireless service, the method comprising causing a network controller to broadcast to all mobile stations in a cell an offer of service; requesting from each mobile station an indication of interest in the offered service; receiving data relating to each interested mobile station enabling the position or received signal quality of each mobile station within the cell to be determined; analysing the arrangement of interested mobile stations in one or more predefined areas within the cell; and requiring each interested mobile station which is out of range of a subsequent broadcast transmission to use an alternative mechanism to receive the service.
2. A method according to claim 1, wherein the range of the subsequent broadcast is determined by one of received power level or received quality at the mobile station of a notification message sent from the base transceiver station to the mobile station.
3. A method according to claim 1 or claim 2, further comprising broadcasting at reduced power to the mobiles within range.
4. A method according to claim 1 or claim 2, further comprising broadcasting at an increased or decreased coding rate to the mobiles within range.
5. A method according to claim 4, further comprising repeating the broadcast a number of times.
6. A method according to any preceding claim, wherein the network controller broadcasts an offer of service using an MBMS channel and the mobile stations respond using an existing random access channel (RACH).
7. A method according to any of claims 1 to 5, wherein the network controller broadcasts an offer of service using an MBMS channel and the mobile stations respond using a new MBMS RACH (MRACH).

8. A method according to any preceding claim, wherein both position and received signal quality data are received from each interested mobile station.
- 5 9. A method according to any preceding claim, wherein the network controller broadcasts the determined levels and each interested mobile station tests these against stored levels to calculate whether it requires a ptp channel.
- 10 10. A method according to any preceding claim, wherein data enabling the position or received signal quality to be determined for any mobile station which is not idle is transferred, from a network controller via which that mobile station is connected, to the network controller broadcasting the offer of service.
- 15 11. A method according to claim 10, wherein the service is a UMTS service and the data is transferred from a serving RNC to a drift RNC via an interface link.
12. A method according to claim 11, wherein the data is added to a linking message.
- 20 13. A method according to claim 11, wherein the data is transferred on demand.
14. A method according to any preceding claim, wherein a change between a broadcast transmission and an alternative mechanism is made in accordance with a hysteresis diagram